



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Appln. of: Cope, *et al.*

Group Art Unit: 2838

Serial No.: 10/634,434

Examiner: Not Yet Assigned

Filed: August 5, 2003

Docket: EMI.1002

For: **SELF-POWERED DIRECT CURRENT MITIGATION CIRCUIT FOR TRANSFORMERS**

Commissioner for Patents
P. O. Box 1450
Alexandria, VA 22313-1450

INFORMATION DISCLOSURE STATEMENT

Dear Sir:

In connection with the above-entitled matter, Applicant hereby attaches U.S. Patent Office Form PTO-1449, including copies of the references listed thereon. The claims in the present application are believed to be patentably distinguishable over these references.

This information disclosure statement is being made pursuant to the duty of disclosure imposed by law and formulated in 37 CFR 1.56(a). No representation is made that the information thus disclosed in fact constitutes prior art or that it is the closest prior art, inasmuch as 37 CFR 1.56(a) relies on a materiality concept which depends on subjectivity.

In the event there are any fee deficiencies or additional fees are payable, please charge them (or credit any overpayment) to our Deposit Account No. 08-1391.

Respectfully submitted,

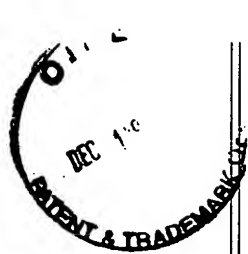
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CERTIFICATE OF MAILING

I hereby certify that this correspondence is being deposited with the United States Postal Service as First Class Mail in an envelope addressed to: Commissioner for Patents, P. O. Box 1450, Alexandria, VA 22313-1450 on December 15, 2003 at Manchester, New Hampshire.

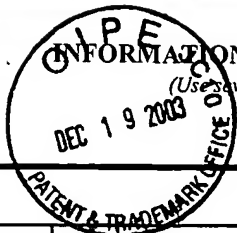
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**INFORMATION DISCLOSURE CITATION***(Use several sheets if necessary)*

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2838**U.S. PATENT DOCUMENTS**

*EXAMINER INITIAL	REF	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
		20010713 014	12/11/00	Gripshover, et al.			

FOREIGN PATENT DOCUMENTS

	REF	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	Translation	
							YES	NO

OTHER DOCUMENTS *(Including Author, Title, Date, Pertinent Pages, Etc.)*

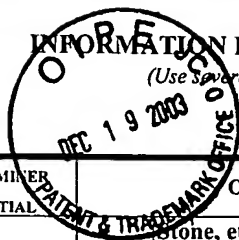
		"Bibliography Transformer Books", Revision 3, December 2002, Pages 1-2
		Walling, et al., "Characteristics of Transformer Exciting-Current During Geomagnetic Disturbances", October 1991, Pages 1707 - 1714

EXAMINER**DATE CONSIDERED**

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INITIAL

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

Stone, et al., "The Advanced Composition Explorer", 1998, Pages 1-23

ALSTOM, "Your Partner in Air Core Reactors", Date Unknown, Pages 1-12 (Business Brochure)

Dickmader, et al., "AC/DC Harmonic Interactions in the Presence of GCI for the Quebec-New England Phase II HVDC Transmission", January 1994, Pages 68-78

Morin, et al., "Modeling of the Hydro-Quebec - New England HVDC System and Digital Controls with EMTP", April 1993, Pages 559-566

Brekke, "Solar Eruptions-The eEffects on Earth's Environment", August 2000, Pages 1-3

Raforkukerfi, "Example of Transformer Connections and Ground Currents", Date Unknown, Pages 1-8 (Power Point Presentation)

Pirjola, et al., "On Geomagnetically-Induced Currents in The Finnish 400 kV Powers System By An Auroral Electrojet Current", April 1989, Pages 1239-1245

Boteler, et al., "Directional Sensitivity to Geomagnetically Induced Currents of the Hydro-Quebec 735kV Power System", October 1994, Pages 1963 - 1971

Boteler, et al., "On Calculating the Electric and Magnetic Fields Produced in Technological Systems at the Earth's Surface by a "wide" electrojet", 2000, Pages 1311-1315

Boteler, et al., "The Effects of Geomagnetic Disturbances on Electrical Systems at the Earth's Surface", 1998, Pages 17-26

Pirjola, et al., "Prediction of Geomagnetically induced currents in Power Transmission Systems", 2000, Pages 5-14

Baek, et al., "High-Voltage Switch Using Series-Connected IGBTs With Simple Auxiliary Circuit", December 2001, Pages 1832-1839

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INITIALS

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

Viljanen, "Relation of Geomagnetically Induced Currents and Local Geomagnetic Variations", October 1998, Pages 1285-1290

Boteler, "Geomagnetically Induced Currents: Present Knowledge and Future Research", January 1994, Pages 50-58

Fothergill, "A Novel Prototype Design for a Transformer for High Voltage, High Frequency, High Power Use", January 2001, Pages 89-98

Gole, et al., "Firing Angle Modulation for Eliminating Transformer Dc Currents in Coupled Ac-Dc Systems", October 1995, Pages 2040-2047

Kappenman, "Effects of Geomagnetic Disturbances On Power Systems", July 1989, Pages 15-20

Kappenman, "Geomagnetic Storms and Their Impact on Power Systems", May 1996, Pages 5-8

Kapperman, et al., "GIC Mitigation: A Neutral Blocking/Bypass Device to Prevent the Flow of GIC in Power Systems", 1991, Pages 1271-1281

Boteler, et al., "Modelling Geomagnetically Induced Currents Produced by Realistic and Uniform Electric Fields", 1997, Pages 1303-1308

Kolawole, et al., "Effect of Geomagnetic-Induced-Current on Power Grids and Communication Systems: A Review.", 1990, Pages 251-261

Albertson, et al., "Geomagnetic Disturbance Effects on Power Systems", July 1993, Pages 1206-1216

Aspnes, et al., "Geomagnetic Disturbances and Their Effects on Electric Power Systems", July 1989, Pages 10-13

Viljanen, et al., "General Mechanisms of Geomagnetically induced Currents In Power Systems and Pipelines", Date Unknown Pages 1-4

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